

One molecule can change everything

Contents

2023 IN BRIEF	3
Sustainability highlights 2023	3
This is Perstorp	5
Our sustainability approach	6
Comments by the CEO	7
Sustainable solutions	8
Our sustainability targets	9
2023 progress towards targets	10
UN Sustainable Development Goals (SDGs)	12
Comments by the VP Sustainability	13
CORNERSTONES FOR REAL TRANSITION	14
The science of life	15
The power of shifting raw materials	16
Re-carbonization	17
Trustworthy mass balance	19
Pro-Environment Solutions	20
VALUE DRIVEN PRACTICES	22
Who we are	23
Responsible business	24
Innovation	26
Regulatory	27
Working at Perstorp	28
Health and safety	32
SUSTAINABILITY STATEMENT	34
Contact	44

Sustainability highlights 2023



Constructed new ISCC PLUS certified Penta plant in Sayakha, India

The construction of a new site for the large-scale production of Pentaerythritol and Calcium Formate, Site Sayakha, is completed. At this site, Perstorp will produce a Penta product mix including Perstorp's mass balanced renewable, ISCC PLUS-certified grade, Vox-tar™. The plant will use renewably sourced raw materials as well as a hybrid source of electricity. The new state of the art plant will help to grow the market share in the Asia Pacific region and meet the growing needs of our customers with the highest sustainability standards.

Executions of actionable plans to achieve 2030 sustainability targets

Perstorp has turned its ambitious sustainability targets for 2030 into actionable roadmaps on corporate level as well as for each of its production plants, outlining hands-on activities to reduce greenhouse gas emissions, reduce waste, save freshwater and enable sustainable transformation throughout the value chain. The company has executed on these roadmaps outlining the steps and actions needed to fulfil them and support customers in reducing their carbon footprint as well as lead Perstorp toward its long-term ambition of becoming Finite Material Neutral.

New products with negative carbon footprint

Perstorp launched five new Pro-Environment 100 grades, demonstrating a negative product carbon footprint: Neeture™ N100, Eviron™ T100, Valeric Acid Pro 100, 2-EHA Pro 100 and 2-EH Pro 100. The products are now available with 100 percent renewable and/or recycled mass balanced content. They have a negative carbon footprint cradle to Perstorp gate, when including the biogenic CO₂ uptake absorbed by the renewable raw materials used. Offering a wide array of applications, the Pro-Environment product portfolio, demonstrates Perstorp's position as a leading supplier of reduced carbon footprint chemicals since 2010.



Signed grant agreement from CINEA and received environmental permit for Project Air

Project Air is a game changing initiative to break fossil dependence by producing sustainable methanol for chemical manufacturing from residue streams, such as Carbon Capture and Utilisation (CCU), together with biogas and hydrogen. In January, representatives from Perstorp, Uniper and CINEA (European Climate, Infrastructure and Environment Executive Agency) met to officially sign the agreement granting the project support from the Innovation Fund. The agreement states that Project Air will receive EUR 97 million in support to enable its ground-breaking technology, which is a crucial prerequisite for the European chemicals industry to become carbon neutral.

The Land and Environment Court at Vänersborg District Court in Vänersborg, Sweden, granted a modified environmental permit for Perstorp's chemical plant in Stenungsund to allow the production of methanol. Perstorp sought the changed permit to enable the implementation of Project Air. The permit also includes the construction and operation of an electrolysis plant for the production of hydrogen.



Purifying and recycling wastewater

Perstorp has implemented a technology to recycle wastewater from a nearby municipal treatment plant for its production operations in Stenungsund, Sweden. This will initially save 0.65 billion liters of freshwater per year, and enable potential future savings of 1.1 billion liters per year. This will also enable Perstorp to secure the future supply of water for the Stenungsund plant. The project is part of the company's long-term sustainability ambition to become Finite Material Neutral. All Perstorp production plants use water for multiple purposes, for example as a solvent for chemical reactions, a carrier for products, a heat-transfer medium and for cooling. One way of reducing consumption of freshwater is to purify and recycle wastewater. The Stenungsund project will enable wastewater from the water treatment plant run by the municipality to be further purified and reused at the Perstorp Oxo production plant. The recycled water will also be used for the production of renewable hydrogen via electrolysis for Perstorp's game changing transition project Project Air, as well as for other strategic investments.

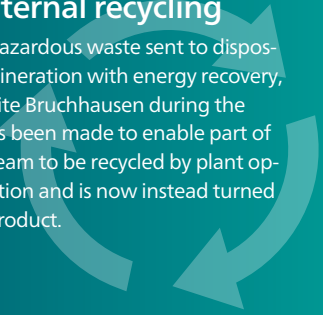
Perstorp receives EcoVadis gold

Since its founding in 2007, EcoVadis has grown to become the world's largest and most trusted provider of business sustainability ratings, creating a global network of more than 100,000 rated companies. In 2023, Perstorp received an EcoVadis gold medal rating. This means that, when it comes to sustainability performance, Perstorp now ranks in the top 5 percent of the industry. Perstorp showed progress in three of the four evaluation areas during 2023 – Environment, Labor & Human Rights, and Sustainable Procurement.



Reduced hazardous waste through internal recycling

The amount of hazardous waste sent to disposal, in this case incineration with energy recovery, was reduced at site Bruchhausen during the year. Progress has been made to enable part of a large waste stream to be recycled by plant operation optimization and is now instead turned into a valuable product.



New sustainability reporting tool and updated processes

Perstorp has implemented a new reporting tool for sustainability data, Sphera, at all production sites globally. This enables instant results from reporting as well as the visualization of sustainability impacts. The tool design and process update was made to enable quarterly reporting which Perstorp aims to introduce during 2024. This is due to internal ambitions on having the dialogue around sustainability performance and our continuous roadmap work on a more regular basis, to ultimately embed sustainability performance into our Quarterly Performance Review process. This is also a prerequisite to align with future compliance requirements (CSRD).

The shift from fossil fuels for steam production

Phasing out fossil fuels for steam production, to reduce scope 1 emission at site Perstorp, was executed during 2023, and will continue in 2024. A conversion from fossil fuel oil to biobased oil has been made and the phase out of peat as a fuel is ongoing. The result amounts to a total reduction of more than 20,000 tons of scope 1 emissions per year.

This is Perstorp

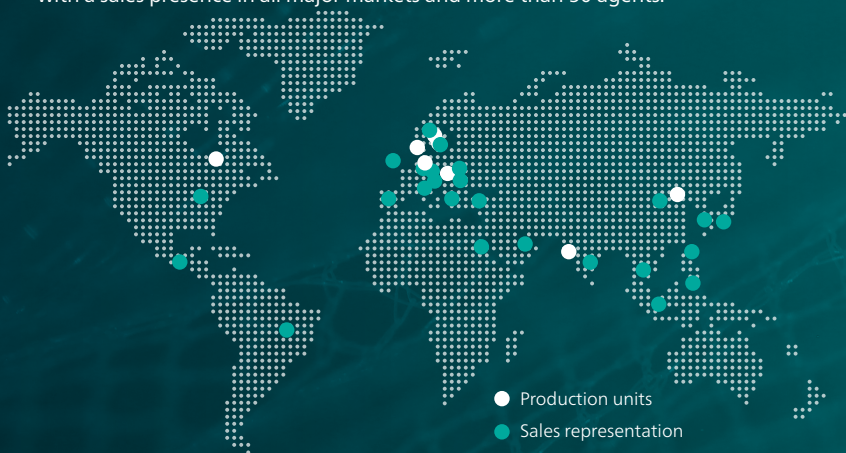
Our products provide essential inputs and properties for many value chains in a wide range of industries. Perstorp's solutions are used every day and everywhere around the world. They are found in the electric cars and in components in mobile phones, but also in towering wind turbines and at the local dairy farm. We improve the quality of everyday life and we do it with a focused sustainability agenda.

World leader in selected specialty chemicals niches

- The sustainable solutions provider for our prioritized segments Resins & Coatings, Engineered Fluids, Advanced Materials and Animal Nutrition.
- Integrated Polyols and Oxo platforms enable the efficient utilization of side streams.
- Focused innovation for our prioritized segments, closely linked to our customers' needs.
- Strongly committed to the transition of the chemical industry, with Finite Material Neutral as our ambition.
- Globally present with production units in Europe, Asia and North America, with a new state-of-the-art greenfield plant in Sayakha, India, which was inaugurated in February 2024.
- Since October 2022, Perstorp has been a wholly-owned subsidiary of PCG, Malaysia's leading integrated chemicals producer and part of PETRONAS Group.

Global presence

Perstorp is the operator of eight production units in Europe, Asia and North America with a sales presence in all major markets and more than 50 agents.



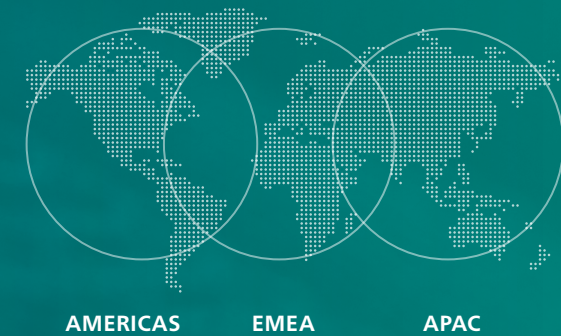
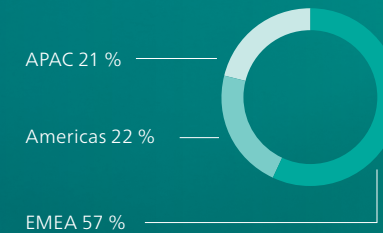
~1,500
Employees worldwide

12.2
Billion SEK Turnover

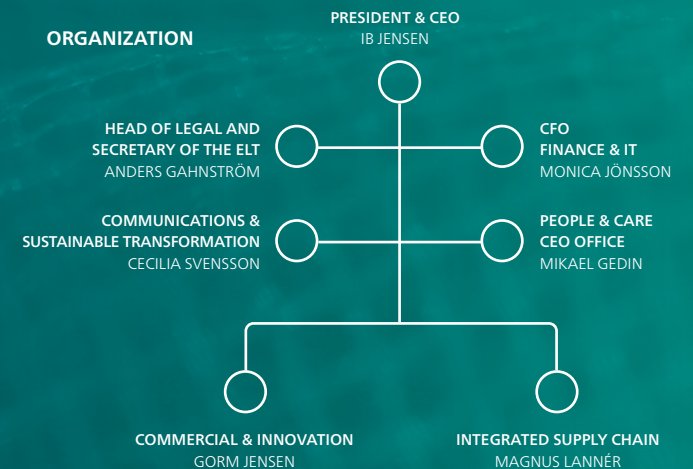
274
Million SEK EBITDA excl. non-recurring items

50 %
No. 1 position of 50 percent of portfolio

NET SALES BY GEOGRAPHY, 2023



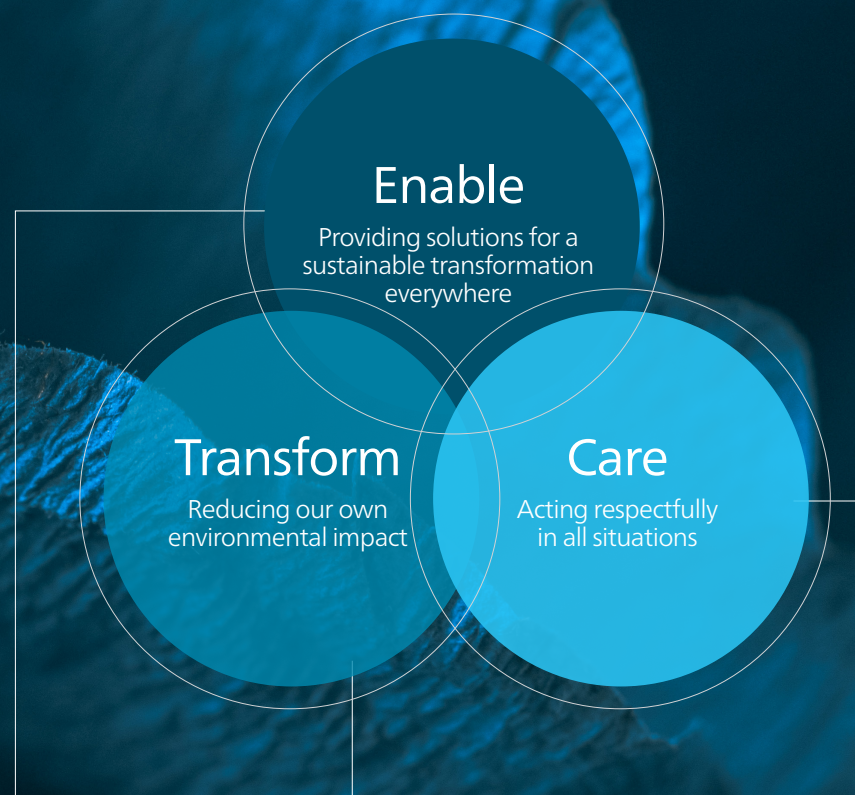
ORGANIZATION



Our sustainability approach

We have the opportunity to make a great positive impact; by driving change, transforming our production and enabling new solutions that will help industries and products everywhere to become more sustainable. We are fully committed to do so and to always act respectfully with regards to people, environment and society.

Our approach to sustainability is built around the three areas that we have identified as key enablers for us as a company to drive change and ensure a positive impact.



Enable

Our products are used by and required for the sustainable transformation of many industries and end products. This gives us the opportunity to drive change within entire global value chains by enabling and supporting new sustainable solutions.

Transform

As the chemical industry has a large environmental footprint, the sustainability transformation in our industry will have a significant positive impact. This is our responsibility and a prerequisite for society's ability to survive and thrive in the long-term.

Care

We operate in an industry where accidents can have severe consequences and where our business and decisions impact many people. Therefore, health and safety is a top priority, and acting respectfully and fair with regards to people, environment and society are deeply rooted in our values and how we do business.

Driving progress in volatile environments

2023 was a challenging year. Perstorp as well as the whole industry were affected by the general financial downturn, and our customers scrutinized their costs. Meanwhile the sustainable transformation of the industry continues and Perstorp is well positioned to drive this development. We have the long-term ambition of becoming Finite Material Neutral, we have set targets for climate emission reduction approved by the Science Based Targets initiative (SBTi) and additional 2030 targets for water, waste and (eco) toxic impact. We are committed to achieving these targets.

We adhere to the global frameworks and are a proud signatory of UN Global Compact and its 10 principles, as well as supporting the UN Sustainable Development Goals.

If we look at the outcome for 2023, we experienced a decrease in production volume, which is part of the explanation for why we reduced our absolute footprint regarding almost all our 2030 targets. However, there are many factors affecting the outcome of one single year, and we drive our transformation for the long term.

Perstorp has both direct and indirect impact on the various value chains where we deliver. We work systematically, and we make progress both through incremental improvements in our daily operations and through major projects and investments. Our work is relentless, as we want to deliver on our roadmaps.

A substantial part of Perstorp's sustainability strategy is based on working closely together with our customers in all our value chains. By choosing one of our Pro-Environment products with a reduced climate impact, our customers and their customers can continue to

build their sustainable value chains. Therefore, it is important for us to share our knowledge and to help enable the transformation of their industries.

We see a growing understanding of the transformational impact that the chemical sector can contribute with when it comes to creating a more sustainable society, but the focus in the public debate is still to a large extent set on energy, and not on the importance of materials. Materials made from non-fossil sources are essential to a sustainable society.

Europe has taken a leading role in adopting stringent measures through initiatives like "The European Green Deal" and "Fit for 55". These initiatives include legislation across various sectors, such as energy, transportation, and industry. However, this also highlights the disparity in regulatory approaches worldwide, which can create challenges in both achieving global climate targets and for European industry to remain competitive short and long-term.

European industry provides the innovative force needed to deliver the climate solutions of tomorrow. However, a regulatory and commercial environment that more explicitly supports and amplifies innovation and entrepreneurship is essential. By working together with our customers and stakeholders, we can develop the sustainable chemical industry of the future.

Malmö, June 2024

Ib Jensen



“By working together with our customers and stakeholders, we can develop the sustainable chemical industry of the future.”

The sustainable solutions provider

Our corporate mission is to be the sustainable solutions provider within our focus segments. As the sustainable solutions provider, we drive the sustainable transformation in society, focusing on the global Resins & Coatings, Engineered Fluids, Advanced Materials and Animal Nutrition markets.

Finite Material Neutral – our guiding star

Our long-term ambition is to become Finite Material Neutral. By that we mean that all energy, raw material and other resources that are used in, or flows through, our business are part of closed systems. That would mean that no resources are used at a rate greater than nature can replenish. We need to switch to renewable raw materials and help close the loops of finite materials, e.g. through recycling and reuse.

Perstorp works with the following focus areas to become Finite Material Neutral:

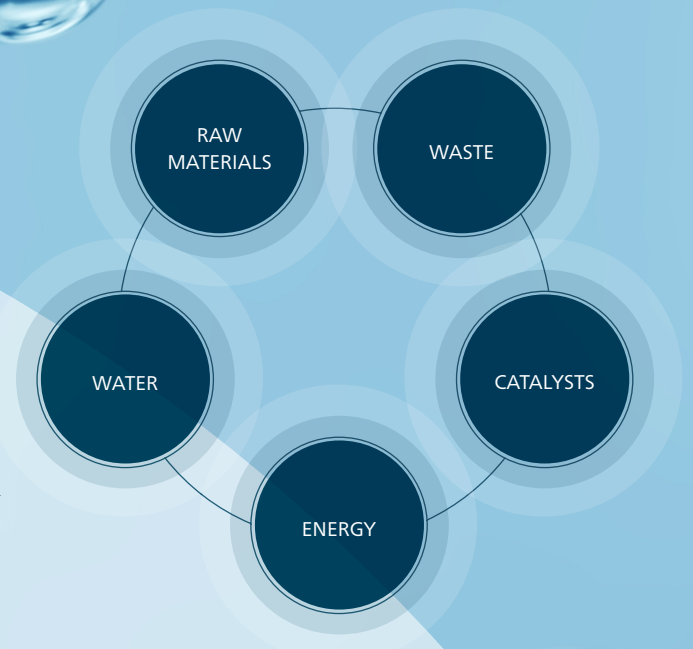
Raw materials – switch to 100 percent renewable, recycled or re-claimed raw materials.

Energy – improve energy efficiency and use only renewable or recovered energy.

Water – reduce our total water footprint and ensure that we do not affect the environment or human health negatively through our water use or water effluents.

Waste – prevent, reduce, recycle and eliminate waste in all phases of its value chain.

Catalysts – reduce our use of catalysts, and only use reclaimed or recycled catalysts.



Our sustainability targets 2030

As a way towards becoming Finite Material Neutral, and reducing our environmental footprint, Perstorp has set ambitious 2030 targets for Climate, Water, Waste and (Eco) Toxic impact. These are the areas where we can make the largest positive contributions. We are fully committed to significantly reducing our impact, and have roadmaps for each target.



Greenhouse gas emissions

As a chemical industry we have a large footprint when it comes to greenhouse gas emissions. Our production processes are often energy intensive and our feedstocks are traditionally fossil based. Therefore, reducing greenhouse gas emissions is one of our top priorities. Perstorp's emission reduction targets for scope 1, 2 and 3 emissions are approved by the Science Based Targets initiative (SBTi), and aligned with the Paris Agreement 1.5 °C scenario.



Targets

Scope 1 and 2 emissions
– absolute CO₂ reduction of

46.2 %

between 2019 and 2030.

Scope 3 emissions
– CO₂ reduction of

27.8 %

per ton product sold
between 2019 and 2030.



Water

Perstorp's production sites all use water to some extent – as a solvent for chemical reactions, a carrier for products, a heat-transfer medium or for cooling. Water is part of our overall Finite Material Neutral ambition and we work to reduce our water footprint through efficiency and reuse technologies.



30 %

absolute reduction of
freshwater consumption
between 2019 and 2030.



Waste

Minimizing waste in all phases of production remains a priority at Perstorp and waste is one of the focus areas of our Finite Material Neutral ambition. We strive to avoid the generation of waste by focusing on quality management at all our production sites as well as finding new, circular ways of using our residues. When waste cannot be avoided, we strive to divert it from disposal in landfill and incineration by recycling it or preparing it for reuse.



30 %

absolute reduction of
hazardous waste directed
to disposal.

30 %

absolute reduction of
non-hazardous waste
directed to disposal.



(Eco) toxic impact

We work continuously to ensure that all the chemicals we launch on the market are safe for humans and the environment. We also want to future proof Perstorp by making sure we have safe and sustainable products that meet increasing demands from brand owners as well as adhering to the EU Chemicals Strategy for Sustainability (part of the EU Green Deal). Safe chemicals in the market also facilitates circularity as they are easier to process and recycle.












No chemicals of concern
should reach the consumer
or professional market.

Newly developed products
should be safe and
sustainable by design.

Refers to the impact that chemicals have on environment and humans. We always ensure the safe use of all the chemicals we put on the market throughout the value chain and continuously drive the development of minimizing hazards in our product portfolio. Any new intermediate products that are of concern will only be marketed if they can accelerate the sustainable transformation.

2023 progress towards targets

All targets and progress are compared to a 2019 base year

	Target area	Indicator	Target	Status 2023 against target	Note
  	Greenhouse gases	Absolute reduction of CO ₂ equivalents in scope 1 and 2	-46.2 %	-23 %	Corresponds to +1 % in intensity
		Intensity reduction of CO ₂ equivalents in scope 3	-27.8 %	-3 %	Corresponds to -22 % in absolute
 	Water	Absolute reduction of freshwater consumption	-30 %	-15 %	Corresponds to +12 % in intensity
 	Waste	Absolute reduction of Hazardous waste	-30 %	-25 %	Corresponds to -1 % in intensity
		Absolute reduction of non-hazardous waste	-30 %	-20 %	Corresponds to +5 % in intensity
 	Toxicity	Products reaching the consumer or professional market that are chemicals of concern	0	32 % of substances fully assessed	
		New developed products that are safe and sustainable chemicals	100 %		

An absolute decrease for all climate targets

In 2023, we reduced our impact in all 2030 target areas compared to both 2022 and our base year 2019, with the exception of non-hazardous waste. This reduction is to a large extent explained by lower production volumes but it is also due to a continuous and systematic development and execution of our roadmaps until 2030.

Looking at the intensity of our impact areas, the specific impact per ton produced product, we saw an increase in 2023 in most of our 2030 areas. This is explained by the fact that our production plants are built and optimized for high production. Lower production utilization is normally less efficient in most respects, e.g. when it comes to the use of resources such as energy and water. This is the

nature of our operations, and by keeping our focus on what we want to achieve and continue to execute our roadmaps, we will step by step enable reduced impact in both intensity and absolute terms.

Looking at scope 1 and 2, reduction projects implemented during 2023 were e.g. continued phase out of fossil peat as fuel for steam at our site Perstorp, Sweden, as well as a conversion from fossil fuel oil to bio-oil at the same production site. The full effect of this was not seen in the result of 2023 and was also not visible in the group result because of an increased share of production in China, which contributes to an increased scope 1 and 2 intensity due to the more coal based origin of energy.

Reduction projects implemented during 2023 was e.g. continued phase out of fossil peat and replacement of fuel oil with biodiesel, RME, at our site Perstorp.

Scope 3 is also effected by an increased production in China since raw materials, like the energy, have a higher footprint in China compared to the average for the Group. In 2023, we also produced a larger share of products with a higher end of life footprint, compared to previous years. On the positive side of reduced footprint is the continuous growth of Pro-Environment products with lower scope 3 footprint due to the use of renewable and recycled raw materials instead of virgin fossil. This raw material shift is a key to reducing our scope 3 emissions and reaching our scope 3 target in 2030. The shift to Pro-Environment products will continue during 2024 and beyond.

The freshwater intensity of our production plants have a rather linear correlation to the production capacity, therefore the lower utilization rate of our plants led to an increased water intensity in 2023. No significant reduction projects had an effect in 2023, but our first wastewater reuse project, where we replace freshwater with purified wastewater, was completed at the end of 2023 at our site in Stenungsund, Sweden. The effect of this reduction project, will be seen in freshwater consumption in 2024. Further wastewater reuse projects are ongoing at several other sites. Together with reducing our water consumption, shifting to alternative water sources is the key in our water reduction roadmap until 2023.

Hazardous waste directed for disposal showed an intensity reduction in 2023 both compared to 2022 and 2019, despite the lower production, which normally also increases waste generation. One reason for this, was the successful implementation of recycling part of a significant waste stream back into the production process at our plant in Bruchhausen, Germany. Projects to recycle and reuse hazardous waste streams will continue during 2024.

Roadmaps for achieving targets

Perstorp has internal practices in place for driving the continuous work of realizing the 2030 targets, including clear ownership and involvement throughout the organization. The corporate targets are broken down to production site targets and actionable roadmaps until 2030. The roadmaps consist of concrete actions needed to reach the targets, and are continuously executed and developed in a rolling quarterly working process. A corresponding roadmap and governance is in place for scope 3 on group level. These roadmaps are developed using analytical evaluation and planning with a life cycle analysis approach. All new projects are evaluated and analyzed with an LCA approach for calculating their impacts and finding ways of reducing them.

During 2023, Perstorp implemented the sustainability reporting tool Sphera, which during 2024 will enable us to implement a quarterly follow-up of our 2030 targets. This will further help in the continuous work of reducing our impact. According to our roadmaps we are on track to realizing our targets in 2030. Actions in the years to come cover both continuous improvements at our production sites, as well as larger investments in the new technology needed to transform production. An example of such an incremental transformation is Project Air which will have a positive impact on both our scope 1 and 2, scope 3 and hazardous waste (see page 17). Investing in new technology often has longer lead times, but with large effects when implemented.

Together with reducing our water consumption, shifting to alternative water sources has been the key in our water reduction roadmap until 2023. Our first wastewater reuse project, where we replace freshwater with purified wastewater, was completed in the end of 2023 at our site in Stenungsund, Sweden. The effect of this reduction project will be seen in the freshwater consumption of 2024 and onwards. Further wastewater reuse projects are ongoing and planned on several other sites.

Contributing to the UN Sustainable Development Goals (SDGs)

Perstorp is committed to the SDGs and Agenda 2030. By providing more sustainable solutions that enable innovation in virtually all industries and through most value chains, the chemical industry can contribute to a more sustainable society. Our industry is critical for the global sustainability transformation. We have the ability to provide solutions that can directly support many of the SDGs. Our business has significant potential to make a meaningful positive contribution to SDGs 3, 6, 7, 12 and 13,.

What we do



Target 3.9

By working actively with our production processes and products, we substantially contribute to reducing negative impact on health from hazardous chemicals, as well as air, water and soil pollution. We have recently set new (eco) toxic impact targets on our products to ensure that our employees, customers and end-users are not negatively affected by the chemicals we use and produce. Comprehensive occupational and environmental safety measures at all production sites (and similar requirements on our suppliers) also reduce the risk of both handling hazardous chemicals and causing human harm through pollution.



Targets 6.3 and 6.4

We proactively limit all kinds of pollution to water, from our production as well as our products. We work to increase water-use efficiency and water recycling across all production sites and ensure that our freshwater withdrawals do not interfere with the need for safe and affordable drinking water and food production.



Targets 7.2 and 7.3

Much of the transition to a low-carbon society relies on a major switch to renewable energy within all sectors to ensure accessible and affordable clean energy for all. Perstorp contributes to this shift by switching the energy sources at the production sites to renewable alternatives, which will be accelerated in the coming years. A large proportion of our procured electricity also comes from renewable sources.

Another way to meet the future increasing demand for clean energy is to improve energy efficiency, which we continuously work with in our operations. In addition, many of our products, such as synthetic lubricants and engineered fluids, are directly geared to reduce energy consumption further down the value chain.



Targets 12.2, 12.4, 12.5 and 12.6

To ensure sustainable and responsible production, Perstorp needs to transform production processes as well as natural resources used throughout the value chain. Therefore, we have set an ambition to be Finite Material Neutral. We proactively work to improve resource efficiency in our own operations and place requirements on our suppliers. We constantly innovate to promote resource efficiency, waste minimization and the use of renewable or recycled materials and sustainable technologies. With our targets on (eco) toxic impact, we are also stepping up our management of chemicals and minimizing their adverse impacts on human health and the environment. The products we develop shall have a lower environmental impact and be based on renewable or recycled resources. We increasingly offer products that promote recyclability and circularity.



Targets 13.1 and 13.3

As a leading chemicals company, we have a responsibility to take action on climate change. We have set comprehensive and ambitious Science Based Targets to reduce the climate impact of our operations and our value chain in line with the Paris Climate Agreement 1.5 °C scenario. We also raise customer awareness on how our products can help them to reduce their carbon footprint.

Delivering long term on high ambitions

I am proud of leading the sustainability work at a company that already in 2017 set the long-term ambition to become Finite Material Neutral. At that time, we didn't know all the details of how to get there, and we still don't have all the answers, but it says something about the company that I have been part of for most of my career. That we always aim not only to do better, but to find new ways to go beyond what could be seen as possible. Chemicals are part of the issue but also definitely part of the solution.

We are convinced that driving the sustainable transformation of our industry and developing products with minimized climate impact is a winning strategy for the future – in all aspects. A substantial part of CO₂ emissions comes from materials in manufacturing processes. In Perstorp's case, scope 3 amounts to more than 80 percent of our total emissions, which has made the shift of raw materials one of our focus areas. Raw materials for the production of chemicals must gradually be shifted from fossil to renewable and recycled, leading to gradual shifts in all materials that make up end products such as cars, buildings, furniture, clothes and electronics. Meanwhile we must still aim higher, and the end goal is not only to reduce negative impact, but to become a contributor in society.

We have set corporate 2030-targets within greenhouse gas emissions (scope 1, 2 and 3), water consumption, waste and (eco) toxic impact, and have actionable roadmaps to step by step reach all these targets. In 2023, we reduced our impact in all target areas compared to 2022, except for non-hazardous waste. These reductions are due to

the continuous and systematic development and execution of our roadmaps but for 2023, they are also explained by lower production volumes. In 2024 we will start following up the progress towards our targets on a quarterly basis, which will ensure better management.

It has come naturally that we, as a specialty chemicals company, have had our initial sustainability focus on reducing the environmental impact of our business – as this is where we have the largest impact. But there are many additional aspects of sustainability and we are gradually broadening our future focus. (Eco) toxic impact is an area of continuous importance, where we have also set corporate targets until 2030. Responsible sourcing is another area, where we are developing and strengthening our ways of working.

We are expecting a large increase in regulation and legislation in the coming years, especially related to the EU Green Deal. This will accelerate the transformation of our industry, in some instances provide support, in some instances provide challenges, but for sure it will increase the drive and incentives related to the transition of raw materials in our value chains all the way to the end products. I am confident that our mission – to be a sustainable solutions provider – including our determination to master the shift of raw materials, will shift the balance and long-term make a positive impact on people and the planet, the only way to staying relevant in the long run.

Anna Berggren
Vice President Sustainability



“I am confident that our mission – to be a sustainable solutions provider – including our determination to master the shift of raw materials, will shift the balance and long-term make a positive impact on people and the planet, the only way to staying relevant in the long run.”



Cornerstones for real transition

The science of life

Chemistry is fundamental in almost everything that you do. Chemistry is the science of the fundamental building blocks of life and practically all materials that we use in our daily lives such as clothes, furniture, computers, cars and building materials. Almost all manufactured materials depend on chemicals. The transformation of all materials, and society, starts with the transformation of the chemical industry. The chemical industry therefore enables the transformation of our society by supporting all our value chains to reduce their impact, as well as reducing our own.

The chemical industry is a prerequisite for the sustainable transformation of society. Our innovative solutions drive the development of efficient lubricants as well as durable and lightweight materials for wind turbines and efficient batteries that enable the transformation from fossil to renewable energy sources. Materials based on chemical innovation can have a longer lifetime and require less raw material in their production. Chemistry is a major solution provider, where one molecule can change everything.



The power of shifting raw materials

The transformation of the chemical sector is dependent on shifting the raw materials. This is where the large impact is, and therefore also the largest opportunities. For Perstorp, for example, more than 80 percent of our carbon footprint comes from raw materials and the end of life of our products. Shifting raw materials is crucial to minimizing our carbon footprint, and we know that this is true for almost all producing companies, and for society as a whole. For us, this shift means replacing fossil raw material streams.

However, the chemical industry has for a long time been reliant on fossil raw materials, with large impact. Here lies the main challenge of the industry, but also the large opportunity. To reduce our own environmental and climate impact, as well as that of our customers and value chains, we must replace virgin fossil raw materials, and break fossil dependency.

Moving away from fossil dependency is a challenge for large parts of society. For some industries like the energy and transport sectors, electrification can be a solution. This is not the case for the chemical industry, as we use fossil resources as raw materials. We are dependent on the molecules as building blocks to produce materials.

Raw materials – the largest footprint

Perstorp Group total greenhouse gas emissions, scope 1, 2 and 3



To reduce our own environmental and climate impact, as well as that of our customers and value chains, we must replace virgin fossil raw materials with renewables and recycle to break fossil dependency.

Case
The Biogas
Commission

**Industrins
Biogaskommission**

Advocating for industrial biogas

Perstorp is a founding partner of a Swedish initiative to gather companies in the manufacturing industry as well as producers and distributors, in a joint initiative to increase the understanding of the need for biogas as raw material for the chemical and steel industries, for the transition to non-fossil materials. Industrins Biogas-kommission will raise awareness and suggest the political measures needed to rapidly increase the national production of biogas as well as for making it available at an affordable cost for the industry.

Most manufactured goods used on an everyday basis are made from fossil raw materials or using fossil processes. Biogas is one key

component to make the necessary green transition. To enable a shift by 2030 from fossil to biogenic raw materials, the national production of biogas must increase five times the levels of today.

“The understanding for the industry’s need for biogas as a raw material in many manufacturing processes must increase and lead to actions. Biogas has a key role in the sustainable transition for almost all products in our society,” comments Adam Kanne, VP Public Affairs at Perstorp, and Chairman of Industrins Biogaskommission.

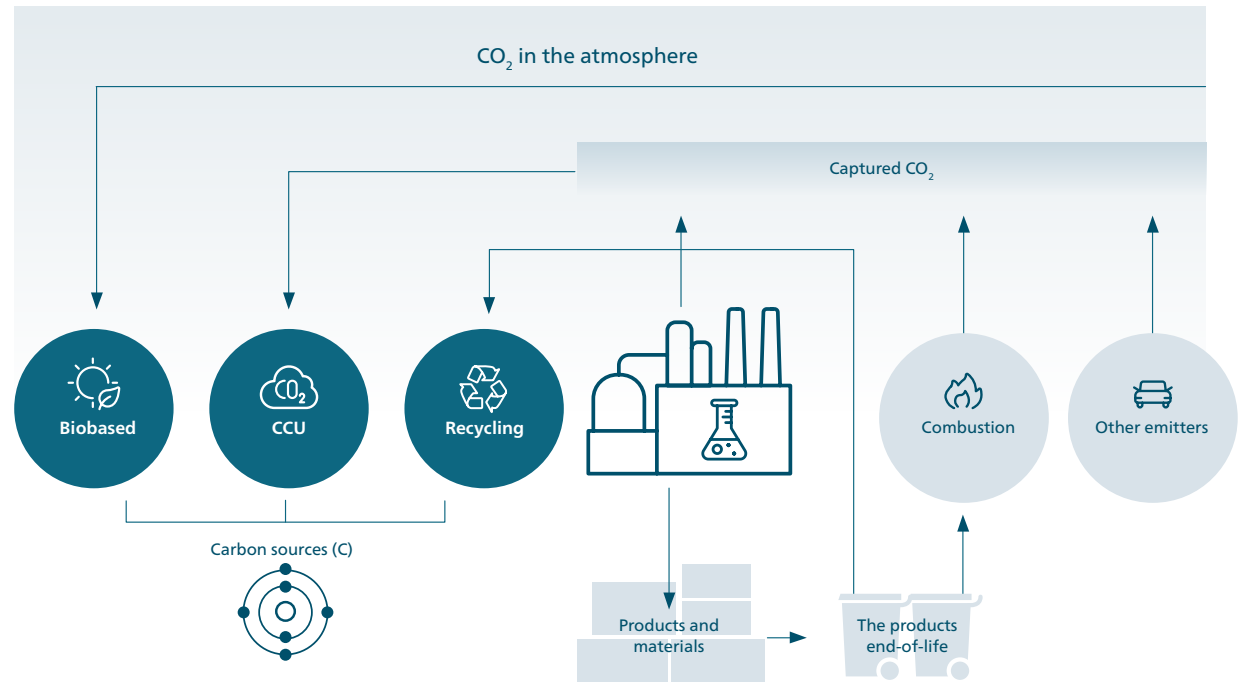
Re-carbonization

Carbon is the source of life, and the main building block in nature as well as in chemistry and all material products. We use it as building blocks to create materials, just like nature does. However, to not harm our planet, we must stop retrieving this carbon from virgin fossil sources. Instead we must find alternative sources and close the loop on carbon.

This means replacing virgin fossil carbon, with captured carbon dioxide, recycled waste and renewable sources.

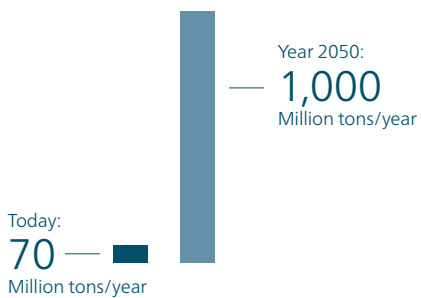
By 2050, the need for carbon will increase and the competition for renewable and recycled carbon will intensify drastically. The global demand for chemicals is expected to more than double from 2020 to 2050. This, together with the challenge of substituting fossil raw material, means that alternative carbon sources need to increase from today's about 70 to 1,000 million tons per year.

To accommodate this need, and to close the loop on carbon, it is crucial that carbon is viewed as a valuable resource and that materials are recycled. We must develop and invest in technologies for recycling carbon emissions, Carbon Capture and Utilization, where carbon dioxide is captured and used as raw materials for new products instead of being released into the atmosphere, as well as e.g. large scale production of waste-based biogas.



It is possible to close the loop on carbon by utilizing captured carbon dioxide, recycled waste and renewable sources.

Expected increase in need for alternative carbon sources until 2050



Case
Project Air

Project Air

Breaking fossil dependency

Project Air is a game changing initiative to break the fossil dependency of the chemical industry, with far reaching benefits throughout numerous industrial value chains. Through the use of innovative circular production methods, including Carbon Capture and Utilization (CCU) from our plant in Stenungsund, we will produce 200,000 tons of sustainable methanol, replacing fossil methanol, for chemical manufacturing. This will reduce global carbon dioxide emissions in various value chains by up to 500,000 tons per year, corresponding to the annual emissions of around 340,000 new cars running on fossil fuel. In 2023, Project Air received its environmental permit and basic engineering is ongoing.

"We are demonstrating that it is possible to break our industry's fossil dependency. We hope that more will follow our lead with similar technologies, enabling circular production processes that utilize residue streams and captured carbon," comments Ib Jensen, CEO of Perstorp Group.



Trustworthy mass balance – a key to material transformation

How do we even begin to phase out fossil raw materials? We see mass balance as a prerequisite for driving the large-scale phasing out of fossil raw materials within the chemical industry, with the goal of a fully converted industry. It enables a step-by-step transformation to recycled and renewable raw materials. However, in the market today different mass balance methods are used, with different levels of traceability. This creates confusion and makes it difficult for end users to trust the method.

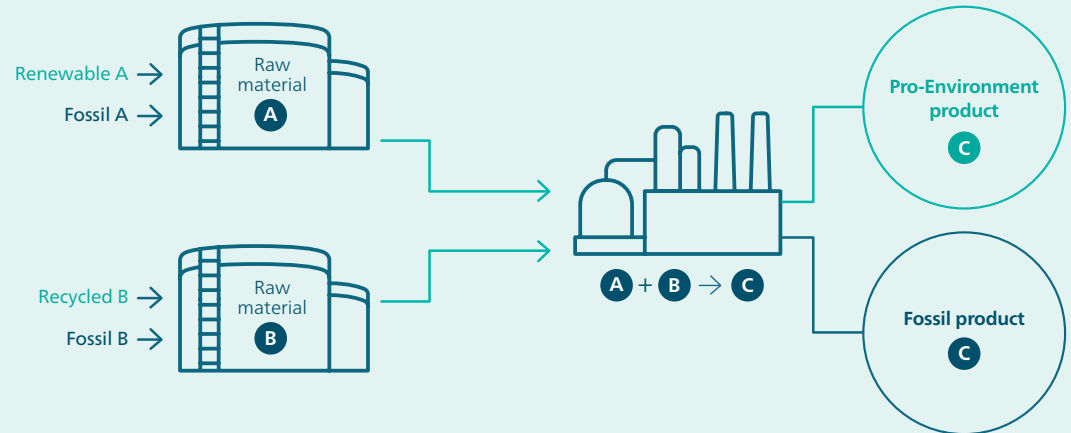
Mass balance must be trustworthy to gain widespread acceptance, in order to enable the transformation of material products. As we see it, mass balance methodology has to:

- drive real change; supporting the development of the recycled/renewable raw materials and the development of efficient production processes needed for the real transformation of the industry.
- be transparent and have acceptance from all parties in the value chain including governments, regulators, brand owners and end consumers.

This is why we are using and advocating for a mass balance with chemical and physical traceability. By applying this throughout the value chain there is a connection from the raw material to the end product, which drives the real phase out of fossil raw materials.

Mass balance applying chemical and physical traceability

Enables the gradual shift from fossil to renewable, recycled and CO₂-based raw materials in our existing production plants.



Raw materials transported to the site where they are used. No transfer of credits within the company.

The raw materials can only replace their own share of the product.

The raw materials are used in the process unit where the product is being produced.

There is a possibility of finding sustainable molecules in the end-product.

What is mass balance?

Mass balance provides manufacturers with a methodology to track certified materials as they move along the value chain and attribute the inputs of a production process to outputs of that production process through certified bookkeeping.

In chemical production processes, input materials of different origins and characteristics, such as certified renewable/recycled materials and fossil raw material, are often mixed. That is particularly the case in industries with assets with complex manufacturing processes where certified and non-certified materials cannot be processed in separate production lines.

However, the application of mass balance should not be viewed as an objective itself. Instead, it should be seen as a bridge facilitating the transition of raw materials into segregated production processes.

Pro-Environment Solutions

Reducing carbon footprint throughout value chains

We call our shifted products, that are partly or fully based on mass balanced renewable and recycled raw materials, Pro-Environment. Since the launch of our first Pro-Environment product in 2010, we are continuously expanding the product portfolio. The products are today available within polyols, acids, alcohols, plasticizers and in many of our specialty products.

Five new Pro-Environment products, grade 100, fully based on renewable/recycled raw material, were added in 2023. The new products were enabled by introducing renewable olefins in our raw material mix.

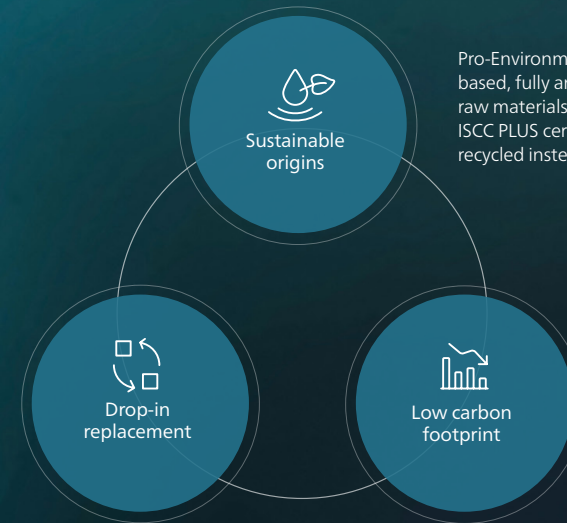
Pro-Environment products not only enable us to reduce our own carbon footprint and shift from fossil dependence towards renewable and recycled raw materials, but they also have a ripple effect. They enable our customers to bring products with reduced carbon footprint to their respective end markets, ultimately contributing to a more sustainable value chain.

Our criteria for a Pro-Environment product are:

- Partly or fully renewable or recycled origin
- Carbon footprint reduction
- ISCC PLUS certified
- Based on an ISCC certified mass balance concept applying chemical and physical traceability

Raw materials for Pro-Environment:

- Biogas
- Biomethanol
- Bioacetaldehyde
- Bioolefins



Pro-Environment products are based, fully and partially, on raw materials whose origins are ISCC PLUS certified renewable/ recycled instead of virgin fossil.

Pro-Environment products are chemically identical to their fossil counterparts, offering the same performance without any trade-offs in quality and no reformulation efforts are required.

Pro-Environment products are designed to reduce emissions throughout the value chain and will contribute to lowering the customer's Product Carbon Footprint and Corporate Carbon Footprint.

All our Pro-Environment products are ISCC PLUS certified, as well as our mass balance method and the product carbon footprint calculations. Being ISCC PLUS certified means that all our sustainable raw materials are ISCC PLUS or ISCC EU certified in all parts of the value chain all the way back to the point of origin.



Case
Pro-Environment
products

The effect of shifting to Pro-Environment – the Eiffel Tower

Resins and coatings is Perstorp's largest business area. Typically, the resin component accounts for roughly half of a finished paint or coating product's product carbon footprint, and therefore the choice of resin has a large impact. Let's take a look at what effect it can have using one of our Pro-Environment products when painting a famous building such as the Eiffel Tower.

The Eiffel Tower is repainted every seventh year with 50,000 liters of alkyd paint. That paint contains about 3,500 kg Pentaerythritol. If a Pro-Environment grade of Penta was used, instead of a fossil-based resin, the effect would be a reduction of about 11,000 ton CO₂ emissions, and 3,500 kg virgin fossil raw material would stay in the ground.

The Eiffel Tower is only one object. Imagine the impact that this shift, early in the value chain, would have on the product carbon footprint of all products we enable. And with that, the corporate carbon footprint of the value chains we are part of. Not to mention the effect on society as a whole.

 3,500 kg
virgin fossil raw material saved

 -11,000 tons
CO₂ emissions reduction



Value driven practices

Who we are

Acting respectfully and fairly with regards to people, environment and society are deeply rooted in who we are – our values, our purpose and how we do business.

Purpose

We believe that one molecule can change everything. So, we are here to lead change towards chemistry that advances everyday life for the better.

Our purpose is what we believe about the world, leading us to be the change we want to see.

Understanding and feeling inspired by Perstorp’s reason for being, our “why”, is fundamental for our employees. We have been in business for more than 140 years and we have always strived to be in sync with the world around us and reinvented ourselves several times to anticipate and meet the needs around us.

Our vision

Perstorp’s vision is to become the first choice for companies seeking a competitive edge from chemistry that advances everyday life. This involves focused innovation in our product portfolio and processes, as well as in how we approach and respond to our customers.

As the world is changing at an increasing pace, what is “best” today might be acceptable tomorrow and inadequate next year. This is why it is important to have a vision to strive towards and to constantly develop as a company.

Our mission

The mission defines what Perstorp aspires to become:

“We are the sustainable solutions provider, focusing on the global Resins & Coatings, Engineered Fluids, Advanced Materials and Animal Nutrition markets”. Our Mission clarifies that we are driven by sustainability, and that we are always there for our customers, partners and colleagues, to reliably deliver on our promises and the expectations of others.



Care

Lead with heart

Care is about acting respectfully towards everyone and in every situation, 365 days a year. This is not least important for health and safety and our sustainability work.

Focused Innovation

Make it better

A focus on innovation ensures we constantly look for improvements and make things better for people and the planet – where we can and where it really matters.

Responsibility

Do right

We have a responsibility to not only follow the rules, but to do what’s right by advancing everyday life through a long-term holistic approach to value creation.

Reliability

Keep the promise

We are always there for our customers, colleagues and partners, and we deliver on our promises and the expectations of others.

Responsible business

We believe that managing our business responsibly is the basis for long-term business success. We work continuously with sustainability with the aim of making gradual progress, which often involves working on multiple fronts – including responsible sourcing, anti-corruption and sustainability governance. As a responsible business, we have to be a responsible employer, buyer, business partner and corporate citizen.

Responsible sourcing

It is essential that we co-operate and co-innovate with our value chain partners to reduce our own footprint and develop a more sustainable industry. An important part of this work is to address the risks of negative impacts or unlawful and harmful practices in our supply chains. We apply our Vendor Policy for suppliers, which is based on our Code of Conduct and includes human rights, labor standards, anti-corruption and environmental responsibility. Raw material suppliers of large spend or with high risk are systematically assessed using a supplier evaluation tool. 80 percent of our raw material spend is covered by this systematic approach. During 2024, we aim to improve the system support for supplier assessment and raise the competence of everyone working in the supply chain organization regarding human rights.



of our raw material suppliers of large spend or with high risk are systematically assessed using a supplier evaluation tool.



PETRONAS Compliance Framework

As part of its Corporate Governance structure, PETRONAS has a robust Legal Compliance Framework, including five Critical Legal Areas: Ethics and Integrity, Data Privacy, Sanctions, Export Control, and Competition. Based on a review of these five legal areas against the corresponding control documents in Perstorp, a process has been started to adopt and adapt these control documents to secure compliance with the PETRONAS' framework. The implementation is planned to start to take effect in Q3 2024, with a phased roll out per area until mid-2025, and will be accompanied by communication and training activities for all employees.

Ethics and integrity

Perstorp's Code of Conduct is our guide for ethical business practice and includes principles related to anti-corruption, anti-competitive behavior and public policy. The overall guidance is complemented by more specific policies and procedures, such as a specific anti-bribery policy. Perstorp also expects its suppliers, distributors and other business partners with which we have close relations, to act according to our business principles. During 2023, no case of corruption or attempt of corruption has been identified.

During 2024, Perstorp plans to adopt the PETRONAS Code of Conduct and Business Ethics (CoBE). Preparations for implementation were started in 2023, including planning for communication and training to enable Perstorp employees to put the new code into practice. By adopting the CoBE, Perstorp employees will have access to guiding principles that are continuously developed at pace with changing needs and development of our business practices, as well as thorough training and communication on the topic.

The CoBE is supported by the PETRONAS Anti-Bribery and Corruption Manual, which is applicable to all employees as well as third parties, with a zero tolerance for all forms of bribery and corruption.

Whistleblowing

In case of any suspicions of misconduct or other breaches of Perstorp Code of Conduct, all employees can raise their concern without risk of retaliation. During 2024, Perstorp plans to adopt the PETRONAS Whistleblowing Policy, but keep the process and functionality introduced for whistleblowing in 2022, that allows for anonymous reporting of misconduct via phone, app or web to Perstorp’s Whistleblowing Office.

Competition

To further enforce the support to all business areas, group companies and employees to comply with competition and antitrust laws, Perstorp plans to adopt and adapt the Perstorp plans to adopt and adapt the PETRONAS Competition Law Guidelines in 2024. With specific amendments to the PETRONAS Competition Law Guidelines to fit the specialty chemicals business. Perstorp will be fully aligned with the five critical legal areas and well equipped to manage competition matters.

Sanctions

As part of the compliance framework Perstorp plans to adopt and adapt the PETRONAS Sanctions and Export Control Guidelines and Group Sanctions Position. The adaptations planned will ensure that Perstorp keeps the somewhat more stringent position that is expressed in the current control documents, while at the same time be fully compliant with the PETRONAS Legal Compliance Framework.

Export control

While Perstorp does plan to adopt the overall PETRONAS Sanctions and Export Control Guidelines, the Perstorp Trade Restrictions Policy will remain as it provides more detailed instructions. Clear references to PETRONAS Sanctions and Export Control Guidelines will be made. In 2025, Perstorp also plans to adopt new tools and processes used by PETRONAS.

Data privacy

In a digitalized world, we must protect our business data and handle information responsibly. We work to minimize the risk of sensitive information ending up in the wrong hands through accidental information sharing, theft, coercion, bribery etc. Together with PETRONAS and PCG, Perstorp is adapting to a suitable security standard and keeping up to date on and adapting to the current landscape of threats.

As part of our routines in this area Perstorp tracks incidents and during 2023 Perstorp Group had zero confirmed information security incidents. During 2022 and 2021, the number was also zero.

Innovation drives sustainability at Perstorp

Innovation plays a pivotal role in advancing sustainable practices across industries. At Perstorp, we actively engage in research and development (R&D) collaborations with academia, subject matter experts, research institutes, and other partners in order to create more sustainable solutions for the future.

The fact that 96 percent of all manufactured goods rely on chemical products, highlights the importance of the sustainable transition of the chemical industry. There are several approaches to enable this transformation, where product innovation and process efficiency are of major importance. Through innovation we develop products and solutions with a safe and sustainable by design mindset. These innovations often involve renewable or recycled materials and promotes circularity. In order to tackle pressing environmental challenges, topics like bio-based raw materials, de-fossilization, and circularity are high on our innovation agenda.

We embrace carbon capture and utilization (CCU), ensuring that our products also have positive contribution to the environment. Another way to contribute to the industry's sustainable transformation is to create more effective processes. By doing so, we can minimize our environmental impact.

At Perstorp, all of our current external research collaborations, including 16 consortia and over 160 partners, and with a total R&D budget of over 500 MSEK, are executed in line with our sustainability strategy.

"Think about a life without plastics – it's impossible. Someday it will save my life I am sure, but it should not destroy our planet at the same time. Now, the ambition is to make sure to incorporate plastics into a circular system. To begin with, plastics is a resource efficient solution compared to many other material options and so, we should avoid it ending up as 'just' waste," says Linda Zellner, Director Innovation – Advanced Materials & Engineered Fluids at Perstorp.

Transforming waste

Plastic recycling is crucial for achieving environmental and climate goals. However, not all plastic packaging is easily recyclable. Perstorp is actively working to lower the carbon footprint for some plastics and offer more sustainable solutions. One of the ongoing initiatives involves the large-scale chemical recycling of PET (polyethylene terephthalate) packaging.

Some PET packaging, for example colored bottles or meat packaging trays, is often not recyclable due to poor quality caused by contaminants and paints. So instead of reusing this plastic it is incinerated. Perstorp, in collaboration with Research Institutes of Sweden, is developing a process for the chemical recycling of PET packaging. This is done through the depolymerization process, which breaks down the long molecular chains in PET into simpler molecules, called monomers, resulting in the chemical BHET.

"It's a relatively well-defined raw material that makes it possible to utilize the carbon that was already used to create the packaging. By using that carbon, the need for new fossil carbon is, in turn, reduced. Through depolymerization, a chemical is created that is well-suited to our and our customers' value chain," says Christian Andersson, Process Technology Specialist at Perstorp.

Regulatory landscape

The chemical industry influences, and is influenced by, sustainable development. The European Union is paving the way, but similar developments are also expected in North and South America as well as Asia. The initiatives listed below are expected to shape both Perstorp's and the industry's future. Being part of the solution and able to influence such policies is essential for long-term success.

EU Green Deal

The Green Deal is a coordinated set of policies and legislation aiming to decouple economic growth and net-zero emissions in the EU by 2050. Perstorp will contribute to the ambition of achieving climate neutrality by improving its own as well as our customers' climate performance. An important theme is circular economy, where Perstorp is developing solutions that help ensure the end products where our chemicals are used, can be reused or recycled. The Green Deal also includes a zero-pollution ambition for a toxic-free environment to which we are aligning and contributing.

Fit for 55

Fit for 55 covers key EU climate legislative proposals and policy initiatives. The aim is to achieve the EU Green Deal and reduce emissions by 55 percent by 2030. Perstorp has excellent opportunities to contribute, for example by working towards our Finite Material Neutral ambition and reaching our Science Based Targets for 2030, aligned with the Paris Climate Agreement 1.5 °C scenario.

EU Chemicals strategy for sustainability

The EU Chemicals strategy for sustainability is a part of the Green Deal package, that works toward the EU zero-pollution ambition and is closely linked to the EU regulation on the registration, evaluation, authorization and restriction of chemicals (REACH), by prohibiting hazardous substances from consumer products. As REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment, Perstorp has a key role to play by bringing more safe and sustainable products to the market. Our (eco) toxic impact targets are a first and important step to align our business with this ambition.

Case
(Eco) toxic
impact

LCA for toxicity

Perstorp is adhering to relevant chemical control legislations for the markets where we operate and has set targets for reducing our (eco) toxic impact by 2023. To look at emerging ways of quantifying toxicity, in 2023 we engaged Faria Azad, a Master thesis student at Karolinska Institutet in Sweden who performed her thesis work at Perstorp. In her thesis work, Faria investigated the possibility of using a toxicity life cycle analysis (LCA) for chemicals as a complement to traditional chemical risk assessment. Toxicity LCA has the potential to bring added value since it includes more aspects of toxicity throughout the life cycle, such as environmental sustainability, ecosystem health and chemical footprint.

A place to learn, develop and make a difference

We believe that every individual can make a significant difference. With more than 1,500 colleagues and operations in several countries, we are still considered a relatively small company. Nobody stays anonymous at Perstorp and everyone's performance really matters.

Working at Perstorp

Perstorp is a global company with a long history and a living company culture. We aim to empower employees by providing opportunities to develop and grow, as well as giving them both the accountability and autonomy to decide what is best for our customers and our company.

Through our global presence, Perstorp's employees have the chance to work with cross-functional teams in many different ways, and connect with colleagues around the globe.

The right competence at the right time – key to our success

At Perstorp, we are empowered by the opportunity to learn, develop and grow, both as individuals and in our professional roles. Our ability to learn, unlearn and re-learn is key to our continued success going forward, and by having the right competence at the right time, we can perform at our full potential both in the short and long term.

We continuously develop towards being a learning organization where learning is present in both the everyday and life-long. During 2023, we have invested in our learning infrastructure including broadening the variety of learning offers and with PETRONAS Chemicals Group Berhad (PCG) as our owner, the opportunities for learning and development are even greater.



Every employee regularly reviews their performance and development needs with their immediate manager – to set and follow up targets, and to discuss their career ambitions.

Recruiting, developing and retaining talent is essential to our success as a company. The competition for talent in our fields of interest is fierce and we want to be an attractive employer. In addition to offering fair salaries and attractive career prospects, we see that our ambitions to be a frontrunner in the transformation of our industry and our strong company culture help us attract and retain talented employees.

We have introduced the Perstorp Young Talent Program, targeting “Perstorpers” between 20-35 years of age. The purpose of this program is to deepen awareness and understanding of the Perstorp value chain, build cross-functional relationships, raise self-awareness, and practice general business and collaborative skills. This is one example of ongoing work to strengthen our focus on learning and development throughout the company. The first group of young talents finalized the program during 2023 and it was very well received by both participants and our organization as a whole.

Diversity and inclusion

As a global company with sites and offices located from Toledo in the West (US) to Zibo in the East (China), with our parent company in Kuala Lumpur, Malaysia, and with our roots in Perstorp, Sweden, our workforce is diverse in many respects, including nationality, age and gender but also competence and background. The Perstorp board of directors consist of five men and three females. During 2023, we started working towards clarifying our stand on diversity and inclusion and this work continues in 2024. With its base in our history and our core values, the new framework will aim to bring closer integration with PETRONAS and PCG’s relevant frameworks and align with UN Sustainable Development Goals.

The employee experience

At Perstorp we value employee engagement and want everyone to be part of improving their workplace experience. To bring in every employees views and comments we use employee surveys performed on monthly basis. The surveys consist of a basic set of questions with some variation over time and with added questions related to topics in focus. Benchmark comparisons are made on all levels in the company, to closely monitor performance and encourage employee engagement.

Since the surveys were introduced, we have seen a steady positive trend in score as well as in participation and the amount of comments that are made in the tool.



Leadership at Perstorp

In recent years, we have successfully transformed how we do business and operate our company, and the journey continues. Our employees must be prepared and equipped accordingly, in order to take accountability and to adapt to and lead change.

Leadership at Perstorp is based on our values Care, Responsibility, Reliability and Focused Innovation and during 2023 we conducted two rounds of our Careway Leadership Program. Perstorp invests in leaders that can develop other leaders, our employees and the company. Through our leadership programs, we cultivate leaders to have the ability to develop and sustain high productivity work environments where employees can develop high self-esteem, and together deliver business and customer value. We strive to build a high-performance culture and are very clear about what we expect from employee and manager behavior.

Leadership at Perstorp is based on our values Care, Responsibility, Reliability and Focused Innovation and during 2023 we conducted two rounds of our Careway Leadership Program.



Perstorp's Technical High School

– a high quality Technical High School

We are proud to lead Perstorp's Technical High School since 1996, which is located in Perstorp in Sweden, where the company was founded. Perstorp's Technical High School maintains courses anchored in industry with a focus on science and technology, and of course committed teachers and students.

Perstorp's Technical High School is a school with great competence and important connections within the industry. The courses are aligned with real-world applications and hold a strong emphasis on technology. Perstorp's core values Care, Responsibility, Reliability and Focused Innovation are the basis of the educational program. Many graduates join Perstorp for work, which highlights a great competence provision.

Perstorp's Technical High School is a part of Teknikcollege, a collaborative initiative within the Swedish industry aimed at enhancing industrial competence. Teknikcollege recently recognized the teaching team at Perstorp's Technical College with a prestigious award for best teachers in Sweden.



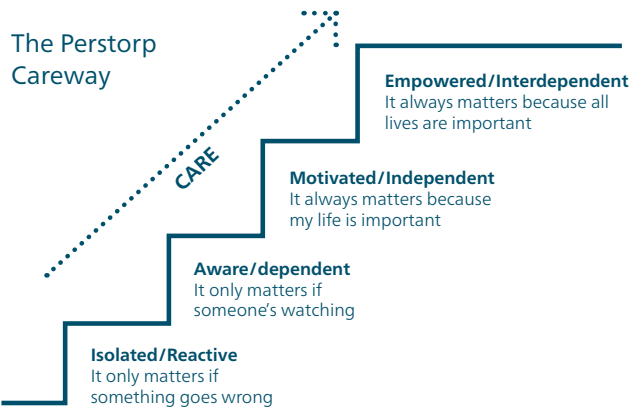
Care in everything we do

We are committed to ensuring healthy and safe workplaces – 365 days a year. Everyone in the company, regardless of position, task or location, is included in our ambition to be a caring company – in all aspects.

Care 365: employee health & safety

Care is an integral part of our culture and one of our core values. We have created our own way of defining Care – The Perstorp Careway, with a strong focus on leadership and how we support our employees in the ever-changing and challenging work environment. The Careway defines the maturity level of our organization in terms of caring behaviors, and we are working to raise the level of maturity throughout our entire company.

The foundation for a healthy and safe workplace is continuously working to strengthen the health and safety culture maturity. To achieve this, we have a comprehensive plan based on our Careway. Progress is measured through internal assessments and we took important steps towards our Careway development goal in 2023.





Workplace safety

In 2023, the total number of OSHA recordable accidents decreased compared to the previous year while the number of lost days increased slightly due to a higher number of lost time accidents (LTA). Actions have been defined on a local as well as global level to target the identified root causes and restore preventive barriers.

Mental well-being and preventative healthcare

In late 2023, Perstorp introduced a strengthened procedure for systematic health management to bolster mental well-being and preventative healthcare. This procedure serves as a practical guide for leaders and employees, equipping them with tools to manage health and safety in their daily work. It underscores the importance of ongoing monitoring of the work environment to spot and handle risks. The procedure sets the baseline for health and safety organization, communication, participation, and workplace design. It also clearly communicates that all employees shall be encouraged to actively engage in initiatives that impact their workplace health and safety.

Increasing sensitivity to risk

To strengthen risk awareness among employees and to encourage everyone to take an active role, we have implemented a way of working at all our production sites to focus on a current topic within health, safety and environment. We cover two topics in a year and during 2023 these were "Slips, trips and falls" and "Exposure to heat".

We have introduced a repeatable process supported by a designated Careway communication network with representatives from all sites and functions. An important part of the puzzle is to integrate as much as possible with already existing activities such as our annual Let's Talk Care 365 day, Behavior Based Safety observations, Safety Walks as well as Care Moments that we have in the beginning of most of our meetings. With every topic we have also introduced material that can be used to deepen discussions during a team meeting or in a training session.

From a toolbox of material, the Careway network members create a local plan and also localize the material with relevant examples and translate to local languages where needed. Many of the examples used come from our global incident reporting system.

The efforts have been successful, according to a follow up survey conducted among managers and the EHSQ community, where 43 percent reported a changed behavior in both themselves and others in relation to the focus area.

A close-up photograph of a butterfly wing, showing the intricate, wavy patterns of the veins. The color is a deep, rich blue, with some darker and lighter shades creating a textured, almost iridescent effect. The wing is curved, and the veins radiate from the center towards the edges.

Sustainability statement

Sustainability statement

This is the Perstorp Group's statutory sustainability report for the fiscal year 2023. It was prepared in accordance with the requirements of the Annual Swedish Accounts Act and has been approved by Perstorp's Board of Directors. It includes our reporting on environmental issues, employee and social matters, human rights and anti-corruption. This report covers all subsidiaries of the Perstorp Group, unless otherwise stated.

Perstorp has an important role in the value chain of specialty chemicals. The company produces specialty chemicals and intermediates with focus on the markets for Resins & Coatings, Engineered Fluids, Advanced Materials and Animal Nutrition. From research and development to a final chemical product which is produced at one of our production sites, Perstorp supplies customers in a wide range of industries. Perstorp's raw materials are sourced by the company's procurement department. Perstorp has sales representation in all major markets, and further support from sales agents. In this report, we disclose information on relevant sustainability topics throughout our operations. Environmental data covers all seven production sites (operating in six countries) which were owned in part or in total by Perstorp at the end of 2023*. These sites are:

- Perstorp, Sweden
- Stenungsund, Sweden
- Zibo, China
- Bruchhausen, Germany
- Waspik, The Netherlands
- Castellanza, Italy
- Toledo, United States

* Note that the production site Sayakha in India is a new greenfield site of Perstorp which was not yet in operation in 2023 and is hence not included in Environmental data for 2023.

During 2023 Perstorp has invested in a new system for sustainability reporting. The investment was done to further develop the data-driven part of the sustainability work and being a platform for further development as regulatory demands on sustainability reporting are increasing. This has led to increased data quality for historical data as well as being a stronger foundation for reporting in the future. Due to this, the historical environmental data has been updated for the categories GHG emissions, other emissions to air, energy, water and waste.

GOVERNANCE

Perstorp's Board of Directors, with three representatives from PETRONAS Chemicals Group (PCG), is ultimately responsible for our financial and non-financial performance, including sustainability, which is a regular topic at Board Meetings. The strategic and operational management of sustainability is delegated to the Executive Leadership Team (ELT) and headed by the EVP Communications & Sustainable Transformation, who is a member of the ELT. VP Sustainability has the role to drive, develop and oversee the Group sustainability work. Cross-functional sustainability teams drive our ambitions and work towards targets as well as builds internal processes and capabilities. Perstorp's main sustainability-related policies are our Code of Conduct, Sustainability Policy, Health and Safety Policy, Environmental Policy, Security Policy, Anti-Bribery Policy, Policy on Competitive Matters, Vendor Policy, Global Travel Policy and General Data Protection Policy.

The Perstorp Group is third-party certified to the ISO 9001:2015 quality management system and the ISO 14001:2015 environmental management system, and apply the precautionary principle. We are also a signatory of the global chemical industry's commitment

Responsible Care. Perstorp is a member of the International Sustainability and Carbon Certification (ISCC) Association and the manufacturer of Pro-Environment products which are certified according to ISCC PLUS. Since 2004, Perstorp has been a signatory to the UN Global Compact, which requires us to commit and adhere to its ten principles relating to human rights, labor, the environment and anti-corruption. Finally, Perstorp annually reports to EcoVadis and last year received a Gold medal for its sustainability work.

SUSTAINABILITY RISKS

As a global production company, Perstorp is exposed to a number of strategic, operational and financial risks. Over time, more and more of the Group's major risks have come to be, partly or fully, related to sustainability. Risks are assessed and managed at many different levels and locations, where the most material risks are reported to the Board. Action plans to reduce and control those risks are developed, assigned and reviewed during the year. The results of risk assessments are also used as input to strategic processes and budget processes. Below is a list of Perstorp's major sustainability related risks.

Risk category	Exposure	Mitigation activities
Climate change	Rising temperatures, sea levels, freshwater scarcity and the occurrence of extreme weather events are posing risks to our production facilities, as well as many of our customers'.	The group works to lower our carbon footprint and thereby contribute to a less severe climate change. At the same time, we perform site and issue specific risk analyses and regularly invest in new machinery and technology to increase the resilience of our sites and products.
Renewable raw materials	Perstorp is dependent on alternative, non-fossil raw materials to reach the group's sustainability targets. Volatile availability and pricing of these may mean that enough quantities to support the transition cannot be procured.	Road map for raw material transition and innovation projects aimed at enabling future scale-up of supply. Hedging options and passthrough of raw material price increases via raw material price formulas are assessed continuously.
Production disruptions	Sustainability related events such as fires, environmental accidents and other accidents with serious personal injuries may lead to major disturbances and interruptions at Perstorp's plants. This may result in loss of earnings if deliveries are delayed.	The Group has business contingency plans in place. Furthermore, as part of the Care 365 program, all Perstorp sites work systematically with safety issues, occupational safety issues and environmental issues to prevent any accidents.
Safety	Chemical production plants include processes with high temperatures, high pressure and requires careful handling of raw materials as well as finished products. This does pose risks for those working at sites, the societies surrounding them and the customers when handling the products, if handled incorrectly.	Design and construction of our facilities as well as our operating procedures are based on extensive and in-depth risk level assessment and hazard analysis. We prioritize based on risk levels. We report major risks and mitigations to authorities based on Seveso legislation. The Group has invested, and continues to invest further, in the Care 365 program and the Responsible Care program, thus addressing risks related to human harm in our daily operations and in relation to the product users.
Governance	The risk of decisions being taken on the wrong grounds or based on inaccurate information.	Perstorp's governance model and policies safeguards compliance with external and internal rules and regulation.
Regulatory & compliance	The risk of a negative impact on the Group's result or reputation arising from litigation, arbitration, disputes, claims or participation in legal proceedings. Increased operational cost and/or changes in competitive landscape due to changes in laws and regulations. Risks of individuals not complying with regulations and/or the Group's Code of Conduct.	Perstorp has routines and process to proactively develop best practice production, meeting regulatory environmental and occupational health and safety requirements. Employees are made aware of legal requirements and our Code of Conduct, through information and training. Perstorp's legal policy provides the framework and procedures for handling potential disputes.
People	Risk of not being able to recruit, develop and retain competent and committed employees.	Perstorp works continuously with succession planning, has zero tolerance for discrimination and harassment, and has a high focus on offering competitive terms of employment, healthy and safe work environment and work/life balance. Perstorp's own Gymnasium in Perstorp is an important recruitment base for the local site.
IT & cybersecurity	The risk of deficiency to or loss of availability, confidentiality and integrity of information assets caused by factors such as technical failures or deficiencies, environmental factors, unintentional activities performed by internal personnel due to lack of competence or awareness, or intentional actions caused by disgruntled employees or external individuals or organizations.	Perstorp has implemented both technical, administrative and organizational measures to prevent and remediate negative impact to the availability, confidentiality and integrity of the IT-environment. The measures are decided through risk assessments and mitigation is based on evaluation of functionality, security, complexity and compliance with rules and regulations set in relation to costs and benefits. Measures include technical measures, supporting processes, policies and guidelines combined with awareness training.

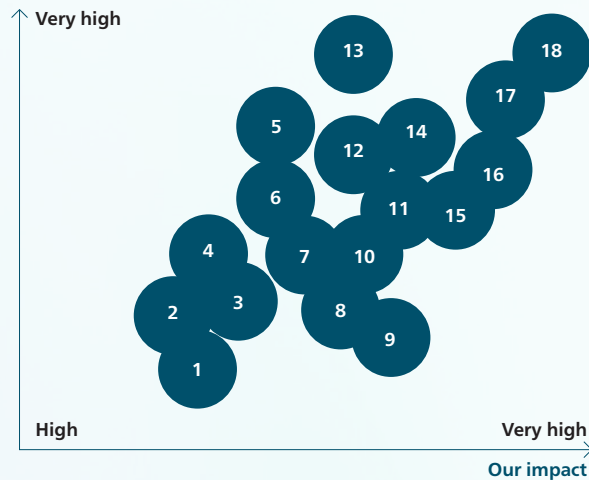
MATERIALITY ANALYSIS

Perstorp’s materiality assessment, conducted in 2021, serves as a foundation for our sustainability work and as a guide when setting targets and developing internal processes. The assessment was based on a double materiality perspective, considering aspects material to the environment and society as well as aspects material to Perstorp in terms of sustainability risks and opportunities. During 2024, the assessment will be revised using the Double Materiality Assessment methodology prescribed by the new European Sustainability Reporting Standards (ESRS), putting even further emphasis on financial sustainability risks and opportunities.

An important part of the 2021 assessment was a comprehensive stakeholder dialogue, collecting input from all Perstorp key stakeholders: employees, customers, investors and lenders, suppliers, peers and partners, legislators and authorities, municipalities and communities, and industry organizations. This was supplemented by

PERSTORP’S MOST MATERIAL SUSTAINABILITY TOPICS

Importance to stakeholders



- 1. Customer integrity and data privacy
- 2. Biodiversity and ecosystems
- 3. Diversity and equality
- 4. Fair marketing and competition
- 5. GHG emissions (operations/transport)
- 6. Socially sustainable supply chain
- 7. Transparency
- 8. Employee development
- 9. Cyber security
- 10. Anti corruption
- 11. Waste management
- 12. Enabling sustainable end solutions
- 13. Occupational health and safety
- 14. Products safe for humans and environment
- 15. Energy use
- 16. Water use
- 17. Green and circular products
- 18. Emissions to soil, water and air

an impact assessment of Perstorp’s operations and value chain and a review of relevant international frameworks such as the UN Sustainable Development Goals, Global Compact and the SASB (Sustainability Accounting Standards Board) Materiality Map. The materiality assessment has identified 18 sustainability topics as material. The assessment confirms our longstanding priorities of working with occupational and process safety as well as the environmental and climate impact generated throughout our value chain. It also highlights a need to continuously improve our efforts ensuring high ethical standards and proactive supply chain management.

AIMING FORWARD

During 2023 an important area for Perstorp has been starting-up the continuous work along our transition roadmaps towards the 2030 targets for scope 1 and 2, scope 3, Water and Waste. The cross-functional work according to new working processes involving continuous execution of projects, further development and follow-up of the actionable plans, will continue to be a strong focus in 2024. Developing our sustainability reporting for monitoring and forecasting the progress toward our targets, as well as gearing up for next generation sustainability reporting and data handling has been another area of focus during the year. The software Sphera has been implemented and during 2024 new ways of working will be implemented with e.g. quarterly follow-up of the scope 1 and 2, water and waste targets. Perstorp will also continue to build and develop sustainability data capabilities. Assessing and ramping up our responsible sourcing practices was also an area of attention in 2023 which will continue in 2024.

EMPLOYEES

Perstorp is a global and value driven company with dedicated employees at sites and offices around the world. In order to be responsive and flexible, we strive to decentralize our human resources management to local circumstances and regulations, but always based on our core

values and Code of Conduct. We have global routines for recruitment, onboarding, talent management, appraisals and career development, and remuneration. 64 percent of our employees work at production sites or offices that are covered by formal collective agreements, regulating for example remuneration, training and career management, working conditions and procedures for joint health and safety committees.

With sites located from Toledo in the West, to Zibo in the East and with the company roots in Perstorp, Sweden, there is naturally diversity among the employees. English is the corporate language, making positions attractive for people of diverse backgrounds. A diversity, equity & inclusion policy is being developed for the group.

After the pandemic we have taken the initiative to re-build the Learning & Development department with the ambition to drive and support leadership training and development but also drive development on a broader level. We use both internal and external facilitators and are also making good use of the digital opportunities such as e-learning. All employees take mandatory training in our Code of Conduct, which covers topics such as working environment, diversity and non-discrimination, environmental considerations and business ethics and anti-corruption. Employees at our production sites (70 percent of total workforce) also have further mandatory training in environment and OHS. In addition, our performance management process has been improved during the year to

Rate of female employees	2021	2022	2023
All employees	33.6	29.9	30.3
Management	25.2	27.9	27.7
Senior management	28.8	30.0	25

Employee Data	2021	2022	2023
Turnover	7.5	7.1	7.9
Sickness absence rate	2.9	2.7	2.3

Employment Conditions	2021	2022	2023
% of the total workforce across all locations represented in formal joint management-worker health & safety committees.	No data	75	64
% of the total workforce across all locations who are covered by formal collective agreements concerning working conditions.	No data	75	64
% of the total workforce across all locations who are covered by formally-elected employee representatives.	No data	75	64
% of the total workforce across all locations who received regular performance and career development reviews.	No data	No data	100
% of the total workforce across all locations who received career- or skills-related training.	No data	No data	100
% of the total workforce that has taken training of the Code of Conduct.	100	100	100

facilitate better discussions between manager and employee with regards to health.

OCCUPATIONAL HEALTH AND SAFETY & PROCESS SAFETY

Perstorp is committed to safe production processes and to provide a healthy and safe work environment for all employees and contractors. As a foundation lies our commitment to Responsible Care, the global chemical industry’s program for safe management of chemicals throughout their life cycle, and our Health and Safety Policy. This is supplemented by a number of topic specific minimum requirements, as well as site specific routines and guidelines. Risk assessments to fulfill internal and external environment and OHS requirements are carried out and followed up at all our sites. Perstorp is also recording Process Safety Events (PSE) in accordance with API 754 (Perstorp covers Tier 1 PSE and Tier 2 PSE as per the standard).

2023 marks the implementation of PSE as per API 754 in Perstorp in an effort to align with PETRONAS Chemical Group (PCG) on reporting of PSEs. Prior to 2023 an internal model was used, and it was not possible to translate or compare events between the two models. Both models were mainly based on LoPC (Loss of Primary Containment); however, the pre-2023 model took potential into account

while the PSE model according to API 754 only includes actual events. The numbers reported according to the pre-2023 model are hence naturally higher.

Everyone working at or for Perstorp is expected to keep health and safety as their top priority, every day, 365 days a year. This is what Perstorp calls Care 365. The work with Care 365 is driven company-wide and it addresses culture, leadership and employee engagement in health and safety. It places emphasis on visible leadership from top management, a sense of urgency when it comes to incidents and accidents, clear standards and compliance management.

One of the main tools to ensure continuous development is the “Perstorp Careway”. The Careway is a model that points clearly and specifically at success by focusing on the characteristics and behaviors of organizations with a strong health and safety culture. It is a way to display maturity in terms of health and safety practices and move upward along a maturity scale. Careway assessments are conducted yearly at sites and offices, in order to monitor performance and identify areas of improvement. Based on the results of the assessments, action plans are developed from team level and up to corporate level.

Globally, the Careway continuous improvement (CI) program coordinates cross-functional improvement projects that addresses

identified gaps on a global level. Projects completed 2023 include: Contractor evaluation process, Technical design standard for access means, Risk register and Health leadership framework.

The total number of OSHA recordable incidents in 2023 was 12, which is a decrease from 2022. However, the proportion of these resulting in lost time increased during the same period. In the same way, the total number of lost days increased slightly between 2022 and 2023. The most common event type resulting in recordable incidents 2023 was slips, trips and falls, followed by pinch injury, and contact with hazardous materials. The incident root causes have been and will continue to be addressed in 2024 through improvements in workplace and equipment design, standard operating procedures and awareness campaigns.

CUSTOMERS’ AND DOWNSTREAM USERS’ SAFETY

We work continuously to ensure that all the chemicals we offer are safe for their intended use for humans and the environment. This is closely managed through our product stewardship processes. Since 2021 we also have (eco) toxic impact targets. According to these targets, by 2030 no chemicals of concern should reach the consumer or professional market and all newly developed products should be safe and sustainable by design, in line with EU Chemicals Strategy for Sustainability. Efforts are ongoing to assess all our chemicals against the new ‘chemicals of concern’ concept.

Perstorp complies with the EU REACH regulation and all our relevant substances are registered at the European Chemical Association (ECHA). All our products are accompanied with appropriate safety data sheets that provide detailed information about the product and how to use the product safely throughout the value chain. For those of our current products that have a hazard classification further communication is provided. Throughout our operations, we have processes in place to assess and document risks related to customer health and safety and we proactively interact with customers regarding the potential health and safety risks from product use. During 2023, Perstorp had zero product recalls.

Occupational Injuries	Employees			Contractors			Combined		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Fatalities	0	0	0	0	0	0	0	0	0
Number of Lost Time Accidents	4	4	10	0	1	1	4	5	11
LTA rate*	0.29	0.73	0.70	0	0.19	0.52	0.26	0.30	0.68
Total Lost Days	143	44	54	0	9	10	143	53	64
Number of OSHA-Recordable Accidents**	6	11	10	1	4	2	7	15	12
OSHA rate***	0.44	2.0	0.70	0.50	0.75	0.75	0.45	0.90	0.74

* Number of LTA x 200,000 / number of hours worked.

** Occupational accidents resulting in fatality, lost time accident, restricted work or medical treatment as defined by the Occupational Safety & Health Administration (OSHA) under the United States Department of Labor.

*** Number of injuries x 200,000 / number of hours worked.

Process Safety Events (PSEs)**	2023: Tier 1	2023: Tier 2	2023: Total
Number	5	14	19
Rate*	0.31	0.86	1.17

* Number of incidents x 200,000 / number of hours worked.

** New calculation model from 2023. Please see further explanation in text chapter Occupational Health and Safety & Process Safety.

GREENHOUSE GASES

Perstorp measures and reports emission of greenhouse gases (GHG) in scope 1, 2 and 3 according to the GHG Protocol. Our efforts to reduce these emissions is guided by our environmental policy, our long term ambition to become Finite Material Neutral and our short term Science Based Targets until 2030 set for all three scopes in 2021. We will continue to define sustainability targets that ensure that we are an enabler of a sustainable transformation.

Scope 1 emissions are direct GHG emissions that occur from sources that are owned or controlled by Perstorp, including emissions from combustion of fuels for electricity, heat, or steam and emissions from physical or chemical processing.

Scope 2 emissions are indirect GHG emissions from the generation of purchased electricity and steam consumed by Perstorp.

Scope 3 emissions are indirect emissions from purchased good and services, fuel and energy related activities, upstream transportation and distribution, waste generated in operations, and end of life treatment of sold products.

Perstorp’s GHG targets, approved by the Science Based Targets initiative (SBTi), are for scope 1 and 2 aligned with the 1.5°C Paris Agreement and translates to a reduction of absolute GHG emissions 46.2 percent by 2030 from a 2019 base year. The target boundary includes biogenic emissions and removals from bioenergy feedstocks. Our approved targets also commit to reduce scope 3 GHG emissions from purchased goods and services, fuel and energy related activities, upstream transportation and distribution, waste generated in operations, and end of life treatment of sold products with 27.8 percent per ton sold product within the same timeframe.

Greenhouse gas emissions (GHG)	Absolute (kT)			In relation to volume sold (T/T)		
	2021	2022	2023	2021	2022	2023
Scope 1	320	250	222	0.31	0.31	0.30
Scope 2 (market based)	149	129	136	0.15	0.16	0.18
Scope 2 (location based)	153	132	137	0.15	0.16	0.18
Scope 3	2,962	2,404	2,336	2.90	2.94	3.14
Total	3,430	2,782	2,694	3.36	3.41	3.62

References for GHG calculations and emission factors:

Scope 1

- Emissions from fuel combustion.
- Emissions from chemical processes: Calculated based on the actual carbon content of the substances through mass balance method.
- Emissions from leakage of Ozone Depleting Substances (ODS).
- Fugitive emissions: Global warming potential from IPCC Fifth assessment Report (AR5).

Scope 2

- Electricity: Market-based approach calculated with emission factors from suppliers when available, or else using residual mix factors. Location-based approach calculated with emission factors for national/regional production mixes. Sources are, for European sites: Association of Issuing Bodies; Site Toledo: EPA eGrid database; Site Zibo: values from Ecoinvent.
- Steam: Calculated based on the actual carbon content of the substances.

Scope 3

- Category 1: Emissions calculated for raw materials, utilities and tolled products. Emissions calculated using supplier GHG data if available, otherwise own calculations using supplier data and best matching database e.g. Ecoinvent LCAs or data from Ecoinvent LCAs.
- Category 3: Average data method for Upstream emissions from purchased fuels and electricity, transmission and distribution losses, generation of purchased electricity sold to customers.
- Category 4: Emission from inbound transportations and outbound transportations including transports between own production sites. Distance based method, online maps or calculations and emission factors from Ecoinvent.
- Category 5: Waste generated in all production sites and treated externally, including both waste and wastewater. Waste-type-specific method using emission factors for waste types and waste treatment methods.
- Category 12: Emission calculated based on that all carbon in the products is turned into CO₂ at the end of life.

OTHER EMISSIONS TO AIR

Releases to air from raw materials, reaction intermediates, products and by-products are often associated with our production activities. According to our Environmental policy, each production site is required to continuously evaluate and reduce such emissions, as well as minimize noise, odor and other nuisances. Actual releases, whether accidental or planned, are catalogued, monitored, recorded and, as required, reported to local authorities according to internal routines. All air emissions shall be handled in such a fashion as to minimize the risk of fire or explosion, and to eliminate the possibility of condensation and subsequent contamination of rivers, streams, soil and ground-water. Air emissions which cannot be captured through improved containment shall be incinerated, and those which cannot be incinerated shall always be the subject of legal permits.

Non-GHG emissions	Absolute (T)			In relation to volume sold (kg/T)		
	2021	2022	2023	2021	2022	2023
VOC	123	107	90	0.12	0.13	0.12
NOx	153	138	117	0.15	0.17	0.16
SOx	3	3	2	0.0034	0.0034	0.0028

Ozone Depleting Substances	Absolute (kg)			In relation to volume sold (kg/kT)		
	2021	2022	2023	2021	2022	2023
In use	4,688	4,646	4,769	4.59	5.69	6.41
Leakage	994	301	233	0.97	0.37	0.31

ENERGY

Specialty chemicals manufacturing is an energy intensive process. Perstorp uses significant amounts of energy at each of its plants, and therefore continues to focus on efficiency as well as transition to fossil free energy at the production sites. This is a prerequisite in order to reach our GHG Science Based Targets for 2030. Energy management is guided by our environmental policy and the 2030 transition roadmaps that has been developed for each site.

The sites in Perstorp and Stenungsund are supplied with electricity from hydropower, a renewable source. Since long ago, most of our sites have also in part switched energy source to e.g. use energy reclaimed from production waste, and plans for further transition exist. Four of our seven sites have their own boilers and are equipped with waste heat recovery systems and/or a combined heat and power (CHP) unit. And for the sites where our production processes involves exothermic reactions, the energy generated is recovered and used to produce steam in order to improve energy efficiency. Also other projects have been, and are, carried out at various sites in order to continue improve energy efficiency. The experience gained from all these activities will be a springboard for further actions and to reach our 2030 targets and the Finite Material Neutral ambition.

Energy Consumption	Absolute (GWh)			In relation to volume sold (MWh/T)		
	2021	2022	2023	2021	2022	2023
Renewable	448	453	420	0.44	0.55	0.57
Exothermic* (non-renewable)	514	441	375	0.50	0.54	0.50
Fossil (non-renewable)	740	673	627	0.72	0.82	0.84
Reclaimed from production waste (non-renewable)	518	397	358	0.51	0.49	0.48
Standard electricity mix from regional grid (non-renewable)	76	69	68	0.074	0.085	0.092
Total	2,297	2,032	1,848	2.25	2.49	2.49
– Whereof steam	1,965	1,732	1,571	1.92	2.12	2.11
– Whereof electricity	331	300	277	0.32	0.37	0.37

* At our sites in Perstorp, Stenungsund and Toledo some of our production processes are exothermic reactions which generate energy. This energy is recovered and used to produce steam for the production at the site.

Energy Production	Absolute (GWh)		
	2021	2022	2023
Renewable	201	238	232
Exothermic*	623	515	461
Fossil	415	400	356
Reclaimed from production waste	457	345	317
Total	1,697	1,498	1,365
– Whereof used internally	1,506	1,335	1,201
– Whereof delivered externally (provided as electricity, district heating and steam)	190	163	164

* At our sites in Perstorp, Stenungsund and Toledo some of our production processes are exothermic reactions which generate energy. This energy is recovered and used to produce steam for the production at the site.

WATER

All Perstorp's production processes use water to some extent: as a solvent for chemical reactions, as a carrier for products, as a heat-transfer medium or for cooling. As access to drinking-quality water and water fit for food production is scarce in many parts of the world, Perstorp addresses water as a part of our overall Finite Material Neutral ambition, even though it is not a finite material as such. Our ambition is to continuously work to lower the total water footprint of our products and, until 2030, reduce our absolute freshwater consumption with 30 percent compared to 2019.

Our work to reduce water consumption as well as emissions to water is guided by our environmental policy and site specific routines and guidelines. In order to consume as little water as possible, we make use of highly efficient equipment and technology, and have implemented innovative methods for reusing water. Additional water reuse projects are ongoing at our sites including the use of purified wastewater instead of freshwater.

To prevent contamination of soil, surface water and groundwater, each site identifies, documents and monitors the effluents arising out of its activities. Effluents are routed to wastewater treatment, using methods and procedures prescribed by local law and approved by relevant authorities. Perstorp also works proactively at several levels of production to limit polluted wastewater by reusing chemicals (e.g. solvents) and water within the production, by reducing the amount of wastewater and/or its pollutants leaving the production unit, by removing substances difficult to biodegrade from the waste water at source, by pretreatment when necessary before sending the waste water to biological treatment and by securing adapted and relevant biological treatment before releasing the treated waste water to receiving waters. To reduce the volume of waste sent to disposal, we also use measures to reduce the generation of sludge or use it for energy recovery in our production units.

Freshwater* Use	Absolute (millions of cubic meters)			In relation to volume sold (L/kg)		
	2021	2022	2023	2021	2022	2023
Surface Water	20.85	21.46	16.67	20.41	26.27	22.42
Ground Water	0.96	0.83	0.85	0.94	1.02	1.15
Municipal Supply	0.89	0.83	0.81	0.87	1.02	1.10
Other Sources**	0.88	0.46	0.38	0.90	0.59	0.56
Total water withdrawn	23.62	23.61	18.76	23.12	23.12	25.23
Water returned unchanged	18.71	19.44	14.87	18.32	23.80	20.00
Total water consumed	4.91	4.17	3.89	4.81	5.10	5.23

* All water used by Perstorp is currently freshwater. Freshwater is defined as all water that is suitable for drinking, after treatment with conventional technology.

** Imported steam and water from third party.

The process for reporting water withdrawn involves measurement uncertainty (e.g. due to manual meter readings and risk of uncalibrated meters). Perstorp intend to improve quality of reporting going forward.

Waste water	Absolute (millions of cubic meters)			In relation to volume sold (L/kg)		
	2021	2022	2023	2021	2022	2023
Discharge from own treatment	1.08	0.97	0.97	1.05	1.19	1.30
Discharge to third party treatment	1.25	0.98	1.05	1.18	1.18	1.38
Total wastewater discharged	2.32	1.95	2.02	2.24	2.36	2.69

Waste water: Organic Pollution Before Treatment	Absolute (T)			In relation to volume sold (kg/T)		
	2021	2022	2023	2021	2022	2023
Chemical Oxygen Demand (COD)*	10.8	10.8	8.5	10.6	13.2	11.4

* COD are measured in the flow into the waste water treatment plant. Waste water treatment reduces the COD with over 90 percent and the treated water is sent to recipients. COD is calculated through conversion of the Total Organic Compound (TOC) value. It is done in this way due TOC analysis is better for the environment than COD analysis, since the COD tests uses Mercury.

WASTE

Circular product flows and minimization of waste in all phases of production remains a priority at Perstorp, and waste is one of the focus areas of the Finite Material Neutral ambition. Until 2030, our target is to reduce hazardous as well as non-hazardous waste directed to disposal with 30 percent, compared to absolute numbers in 2019. The day-to-day waste management is governed by our environmental policy and local routines, and stipulates that all wastes shall be stored in a secure way and disposed of using methods and procedures prescribed by local law.

To avoid the generation of waste, we strive to ensure that side streams from our own operations can be reused as input somewhere else in another internal production process or sold as a product, such as our polyol residues. We also put great emphasis on quality management in our production processes to minimize output that cannot be sold. If waste is generated, it shall only be directed to disposal if there are no reasonable means of recycling or reusing it.

Waste	Absolute (T)			In relation to volume sold (kg/T)		
	2021	2022	2023	2021	2022	2023
Hazardous waste						
Diverted from disposal (recycled)	707	1,037	1,072	0.7	1.3	1.4
Directed to disposal:						
– Incineration with energy recovery	62,973	47,442	39,779	61.7	58.1	53.5
– Incineration without energy recovery	49.9	73.9	41.7	0.05	0.1	0.1
– Landfill	4,922	6,452	6,965	4.8	7.9	9.4
– Other disposal methods*	2,170	4,408	2,309	2.1	5.4	3.1
Total hazardous waste	70,822	59,413	50,166	69.3	72.7	67.5
Non-hazardous waste						
Diverted from disposal (recycled)	1,249	1,437	1,426	1.2	1.8	1.9
Directed to disposal:						
– Incineration with energy recovery	3,961	3,541	3,137	3.9	4.3	4.2
– Incineration without energy recovery	0	55	0	0	0.1	0
– Landfill	1,139	943	2,006	1.1	1.2	2.7
– Other disposal methods*	215	8.7	0	0.2	0.01	0
Total non-hazardous waste	6,564	5,985	6,570	6.4	7.35	8.8
Total waste generated	77,387	65,399	56,735	75.8	80.1	76.3
Whereof diverted from disposal	1,377	1,930	2,498	1.9	3.0	3.4
Whereof directed to disposal	75,430	62,925	54,237	73.9	77.00	72.9

*Includes destruction of contaminated water and treatment of contaminated soil and sludge.

ETHICAL PRINCIPLES & ANTI-CORRUPTION

Our Code of Conduct forms a recipe on how to live the company values. It is based on the company's four core values and has been developed in accordance with the UN's Global Compact, OECD's guidelines for multinational enterprises, the chemical industry's Responsible Care program and ILO's eight fundamental Conventions on basic principles and rights at work. The Code has been developed to underline the principles that direct our relations with employees, business partners and other parties. It applies to all employees within Perstorp Group and members of the Board of Directors. Perstorp also expects its suppliers, distributors and other business partners with which it has close relations, to act according to these principles. All employees must know the content of the Code of Conduct and are required to go through a web-based learning module.

In case of any suspicions of misconduct or other breaches of our Code of Conduct, all employees can speak up their concern without risk of retaliation. Employees are encouraged to speak up their concern with their immediate manager, manager's manager, or to the Head of HR or Head of Legal. There is also the possibility to anonymously report any suspected misconduct via phone, app or web to Perstorp's Whistleblowing Office.

Perstorp Group has a number of more specific policies addressing e.g. anti-corruption and preventing anti-competitive behavior. On a quarterly basis all areas of the business are also responsible to report into the Legal Risk Review, which is regulated by our Legal Policy. Any litigation, disputes or claims related to legal or regulatory violations that are material to the Group must then be reported. Any investigation by an authority (e.g. police, anti-trust authority) must also be reported. In 2023 there were no suspected or confirmed cases of corruption and no other litigation issues concerning ethical conduct.

The legal department holds trainings of employees regarding certain policies and procedures on a regular basis. New e-learning modules are continuously being developed, focusing on different aspects of business ethics and compliance. The use of e-learning enables us to better track the implementation of trainings, and also systematically ensure that such trainings are repeated in appropriate intervals, or in case of any updates of relevant legislation, regulations or policies. Several trainings are mandatory for relevant employees to take at regular intervals, such as preventing bribery and corruption and preventing anti-competitive practices.

SUSTAINABLE SOURCING

The Perstorp procurement can be divided into two main areas, each representing different risks, impacts and challenges:

- Product related material, energy, transport and services
- Non-product related material and services.

For each area, social, ethical and environmental issues are factored in when selecting suppliers. Some of our suppliers are directly linked to Perstorp’s corporate sustainability ambition and targets, and are thus directly evaluated on their relevant sustainability performance. However, all suppliers are required to act responsibly in all situations. Our Code of Conduct is the overarching tool to communicating expectations to the suppliers to address sustainability issues, including human rights, labor standards, corruption and environmental impacts. Furthermore, suppliers are required to acknowledge and sign our Vendor policy or provide evidence of internal policy

commitments at a similar level. Through the Vendor policy, the Perstorp Group more specifically requires of its suppliers to act in accordance with international principles in relation to issues such as child labor, bonded labor, occupational health and safety and freedom of association in the workplace.

The Vendor Policy further requires of suppliers to ensure that Perstorp’s production and products are free of conflict minerals in accordance with the US Securities Exchange Commission Rule of Conflict Minerals. The issued Modern Slavery Statement summarizes how the company works, and will continue to work, to prevent any occurrences of modern slavery, in our own businesses and in our supply chain.

Corporate policies and procurement procedures have been adopted to address procurement risks, such as risks related to human rights and other upstream social and environmental impacts. Suppliers of large spend or with specifically high risk are systematically assessed using a supplier evaluation tool. The tool consists of a

self-assessment questionnaire, addressing issues such as environmental management, human rights, labor standards and anti-corruption. 80 percent of our raw material spend is covered by this systematic approach. We are also assessing the need to follow-up the suppliers’ self-evaluations, e.g. through audits. Perstorp’s companies conduct audits of their suppliers already as of today, but then mainly focusing on management systems for quality and environment.

In 2023 a project was initiated to develop the way Perstorp work with responsible sourcing. The delivery during 2023 was to establish an ESG impact assessment in the supply chain that may be replicated when needed. This assessment gives the capability to prioritize potential ESG risks to develop appropriate routines to manage ESG risks in the supply chain. In addition, the assessment follows the methodology for human rights due diligence (HRDD) and will be used as basis if/when developing further policies in this area and/or reporting according to upcoming legal requirements. The work with develop responsible sourcing will be continued during 2024.

Malmö, February 28, 2024

Mohd Yusri Bin Mohamed Yusof
Chairman

Ib Jensen
President & Chief Executive Officer

Durgambikai Arasratnam
Member of the Board of Directors

Debbie Y. Chiu
Member of the Board of Directors

Ralph Pinckaers
Member of the Board of Directors

Gerry Ackert
Member of the Board of Directors
(elected by employees)

Jesper Fahlén
Member of the Board of Directors
(elected by employees)

Heidi Waleniussen-Englund
Member of the Board of Directors
(elected by employees)

perstorp.com



<https://www.linkedin.com/company/perstorp-group/>



#perstorpgroup



@PerstorpGroup



<https://x.com/perstorpgroup>



<https://www.youtube.com/user/ThePerstorpGroup>

PERSTORP HOLDING AB

Post address:

Box 597

201 25 Malmö

Sweden

Visitor address:

Neptunigatan 1

211 20 Malmö

Sweden